CLAIMS

1. A body panel for a vehicle, the body panel comprising:

a unitary outer panel, the outer panel at least partially defining

a hood portion of the body panel configured to extend over and across a front compartment of the vehicle, and

two fender portions of the body panel extending from opposite sides of the hood portion.

2. The body panel of claim 1, further comprising

a unitary inner panel operatively connected to the outer panel and further defining the hood portion and the two fender portions.

3. The body panel of claim 2, wherein the vehicle includes two front hinge pillars each having a forward edge, and wherein the inner panel and the outer panel are configured such that the forward edge of each of the two front hinge pillars substantially continuously abuts the inner panel and the outer panel when the body panel is operatively connected to the vehicle.

4. The body panel of claim 2, wherein the outer panel at least partially defines two wheel openings, and wherein the inner panel abuts the two wheel openings.

5. The body panel of claim 2, wherein the inner panel includes strengthening formations configured to provide the body panel with structural rigidity.

6. The body panel of claim 2, wherein the inner panel includes formations configured to absorb energy in the event of a vehicle impact.

7. The body panel of claim 2, wherein the inner panel or the outer panel is formed using a process selected from the group consisting of superplastic forming, quick plastic forming, and sheet hydroforming.

8. A vehicle comprising:

a body panel having a hood portion extending over and across a front vehicle compartment, and two generally vertically-oriented fender portions extending from opposite sides of the hood portion; the body panel including a unitary outer panel at least partially defining the hood portion, the two fender portions, and the exterior surface of the vehicle, and a unitary inner panel operatively connected to the outer panel and further defining the hood portion and the two fender portions.

9. The vehicle of claim 8, further comprising:

two front hinge pillars each having a forward edge, and wherein the forward edge of each of the two front hinge pillars substantially continuously abuts the body panel.

10. The vehicle of claim 8, wherein the outer panel at least partially defines two wheel openings, and wherein the inner panel abuts at least a portion of the two wheel openings.

11. The vehicle of claim 8, further comprising a front bumper, and wherein the outer panel abuts the front bumper.

12. The vehicle of claim 8, further comprising a front bumper, and wherein the outer panel depends downwardly from the hood portion to extend forward of the front bumper and thereby conceal the front bumper from view.

13. The vehicle of claim 8, further comprising two rocker panels, and wherein the outer panel substantially abuts the two rocker panels.

14. The vehicle of claim 8, further comprising a front bumper and a cowl, and wherein the outer panel substantially abuts the cowl and extends above, or substantially abuts, the front bumper.

15. The vehicle of claim 8, wherein the inner panel includes two integral upper rail formations, and wherein the vehicle is characterized by the absence of upper rails.

16. The vehicle of claim 8, wherein the inner panel is characterized by strengthening formations configured to provide structural rigidity.

17. The vehicle of claim 8, wherein the inner panel or the outer panel is formed using one of superplastic forming, quick plastic forming, and sheet hydroforming.

18. The vehicle of claim 8, further comprising a lower front cross member and two front hinge pillars, and wherein the body panel is connected to the lower front cross member and the two front hinge pillars.

19. The vehicle of claim 18, wherein the vehicle is characterized by the absence of an upper tie bar and upper rails.

20. The vehicle of claim 18, wherein the vehicle further comprises a cowl bar, and wherein the body panel is not connected to the cowl bar.

21. The vehicle of claim 8, further comprising a chassis having

a structural frame;

a by-wire braking system mounted with respect to the structural frame;

a steering system mounted with respect to the structural frame;

an energy conversion system controllable by wire and mounted with respect to the structural frame; and

a body-attachment interface including at least one load-bearing body-retention coupling engageable with a complementary coupling on a body or a body panel;

wherein the body panel includes at least one complementary coupling, and wherein said at least one complementary coupling is operatively engaged with said at least one body-retention coupling such that the body panel is operatively connected to the structural frame.

22. A vehicle comprising:

a body panel having a hood portion extending over and across a front vehicle compartment and two generally vertically-oriented fender portions extending from opposite sides of the hood portion; the body panel having a unitary outer panel at

least partially defining the exterior surface of the vehicle, the hood portion, and the two fender portions, and a unitary inner panel operatively connected to the outer panel and further defining the hood portion and the two fender portions;

a lower front cross member and two front hinge pillars, the body panel being mounted to the lower front cross member and the two front hinge pillars;

wherein the vehicle is characterized by the absence of an upper tie bar and upper rails; and

wherein the inner panel or the outer panel is formed using a process selected from the group consisting of sheet hydroforming, superplastic forming, and quick plastic forming.

23. A method of manufacturing a vehicle body panel, the method comprising:

forming a unitary outer panel using a process selected from the group consisting of sheet hydroforming, superplastic forming, and quick plastic forming, the outer panel partially defining a hood portion of the body panel and two fender portions of the body panel, the fender portions extending from opposite sides of the hood portion;

forming a unitary inner panel using a process selected from the group consisting of sheet hydroforming, superplastic forming, and quick plastic forming, the inner panel further defining the hood portion and the two fender portions; and

connecting the inner panel to the outer panel.